

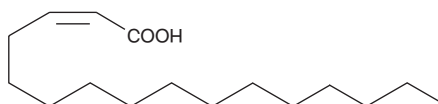
# PRODUCT INFORMATION



## $\Delta^2$ -cis-Hexadecenoic Acid

Item No. 11133

**CAS Registry No.:** 2825-68-5  
**Formal Name:** 2Z-hexadecenoic acid  
**Synonym:** FA 16:1  
**MF:** C<sub>16</sub>H<sub>30</sub>O<sub>2</sub>  
**FW:** 254.4  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

$\Delta^2$ -cis-Hexadecenoic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the  $\Delta^2$ -cis-hexadecenoic acid in the solvent of choice, which should be purged with an inert gas.  $\Delta^2$ -cis-Hexadecenoic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of  $\Delta^2$ -cis-hexadecenoic acid in these solvents is approximately 30 mg/ml.

$\Delta^2$ -cis-Hexadecenoic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers,  $\Delta^2$ -cis-hexadecenoic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice.  $\Delta^2$ -cis-Hexadecenoic acid has a solubility of approximately 0.25 mg/ml in a 1:7 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

One of the first organisms in which quorum sensing was observed were Myxobacteria, a group of gram-negative bacteria, found mainly in soil and also common to marine and freshwater systems. The cellular membranes of autotrophic bacteria contain mono-unsaturated fatty acids. The specific composition and abundance of membrane fatty acids can be used to identify specific genera of bacterial populations in natural environments (e.g., mining lakes, etc.).  $\Delta^2$ -cis-Hexadecenoic acid is an unusual fatty acid unique to some *Myxococcus* species.<sup>1</sup>

### Reference

1. Ohlendorf, B., Lorenzen, W., Kehraus, S., *et al.* Myxotyrosides A and B, unusual rhamnosides from *Myxococcus* sp. *J. Nat. Prod.* **72**(1), 82-86 (2009).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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